

OPERATING AID #14

The American Radio Relay League, Inc.
225 Main Street
Newington, Connecticut 06111

IN AN EMERGENCY

Monitor your local emergency net frequency.

Make contact with your local EC or RO.

Take immediate steps to follow any prearranged plans.

Stay off the air unless or until you are *sure* you can be of assistance.

In widespread emergencies, monitor W1AW for latest bulletins and news.

THE R-S-T SYSTEM

READABILITY

- 1 — Unreadable.
- 2 — Barely readable, occasional words distinguishable.
- 3 — Readable with considerable difficulty.
- 4 — Readable with practically no difficulty.
- 5 — Perfectly readable.

SIGNAL STRENGTH

- 1 — Faint signals, barely perceptible.
- 2 — Very weak signals.
- 3 — Weak signals.
- 4 — Fair signals.
- 5 — Fairly good signals.
- 6 — Good signals.
- 7 — Moderately strong signals.
- 8 — Strong signals.
- 9 — Extremely strong signals.

TONE

- 1 — Extremely rough hissing note.
- 2 — Very rough a.c. note, no trace of musicality.
- 3 — Rough low-pitched a.c. note, slightly musical.
- 4 — Rather rough a.c. note, moderately musical.
- 5 — Musically modulated note.
- 6 — Modulated note, slight trace of whistle.
- 7 — Near d.c. note, smooth ripple.
- 8 — Good d.c. note, just a trace of ripple.
- 9 — Purest d.c. note.

If the signal has the characteristic steadiness of crystal control, add the letter X to the RST report. If there is a chirp, the letter C may be added to so indicate. Similarly for a click, add K. The above reporting system is used on both c.w. and voice, leaving out the "tone" report on voice. Turn card over for examples.

This handy operating aid is actually five aids in one. It can be posted at your operating position, reverse side out, or can be separated into each of its five sections and posted separately or kept near your log. This is another service of ARRL to the amateur operating fraternity.

THE AMERICAN RADIO RELAY LEAGUE, INC.
Newington, Connecticut

To: All Radio Amateurs:

Signal reporting is a courtesy, not an FCC requirement. It is such a common courtesy that every amateur has a space for it in his log and on his QSL card. It is the information most sought in practically any QSO.

The system outlined on the reverse of this card has achieved universal acceptance among c.w. operators, and is being more and more widely used by voice operators.

Be honest! If there is something wrong with the signal of the other fellow, tell him so, because he wants to know, just as you want to know if there is something wrong with yours. Make your reports worthwhile, honest and informative. Use the definitions!

Examples:

By c.w.: RST 359; RST 569X; RST 489C;
RST 579K.

By voice: I am receiving you Readability
. . . (1-5), Strength . . . (1-9).

THE AMERICAN RADIO RELAY LEAGUE, INC.
NEWINGTON, CONN.

To All Radio Amateurs:

The list of "ending signals" on the reverse of this card has been arrived at after careful consideration of common and traditional usage versus need and common sense. This is the use *recommended* by ARRL, of the various ending signals given.

Whether you operate phone or c.w. (RTTY can use the c.w. abbreviations) there are times when, upon standing by, you will find it desirable to indicate to anyone listening, who might want to "break in," just what the status is of the transmission he has just heard. Modern voice communication is "VOX" type and often requires no "ending signals," but voice equivalents of c.w. ending signals are included for convenience. Please help us popularize them.

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Good Phone Operating

1. **Listen much . . . with care.** Avoid distractions in your operating room. Tune the band well after each call.
2. **Time your calls; monitor your own frequency.** Call only when a station is free.
3. **Make short calls, with breaks to listen.** Speak clearly, at a steady, modest rate. Three short calls are better than one long one.
4. **Use Vox or push-to-talk technique . . . speak near the mike.** Watch the modulation indicator. Keep local background noise at a minimum.
5. **Make notes.** Avoid missing points for comment. Jot down topics to avoid repeats.
6. **Talk in connected thoughts and phrases.** Notes will help avoid mixing up subjects. Vox and push-to-talk techniques will help brother amateurs from calling you a monologist.
7. **Speak naturally.** QSOs need not be cut and dried. Make them interesting. Avoid exhibitionism. Use proper operating form to promote efficiency in communication and add respect and prestige for your station.

To: All Radio Amateurs.

A phonetic alphabet or special word list is recommended to use in identifying station calls or difficult words as necessary.

The list helps to avoid facetious word combinations. This gives it greatest acceptability to all amateurs.

Use of a standard list is recommended by ARRL. Haphazard selection of words often results in confusion. A degree of uniformity in use of phonetic words reflects favorably on your individual operating, and on the whole amateur service.

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Some Facts about Time Conversion

The chart on the other side has been arranged to show time zones used by most amateurs in the North American Continent and Greenwich Mean Time, used universally as a standard. The advantage of GMT is that it is the universally understood reference throughout the world. ARRL recommends that all amateur logging be done in GMT.

All times shown are in 24-hour time for convenience. To convert to 12-hour time: for times between 0000 and 0059, change the first two ciphers to 12, insert a colon and add a.m.; for times between 0100 and 1159, insert a colon and add a.m.; for times between 1200 and 1259, insert a colon and add p.m.; for times between 1300 and 2400, subtract 12, insert a colon and add p.m.

Time zone letters may be used to identify the kind of time being used. For example, GMT is designated by the letter Z, EDT/AST by the letter Q, CDT/EST by R, MDT/CST by S, PDT/MST by T, PST by U; thus, 1200R would indicate noon in the CDT/EST zone, which would convert to 1700 GMT or 1700Z.

In converting from one time to another, be sure the day or date corresponds to the new time. That is, 2100R (EST) on Jan. 1 would be 0200Z (GMT) on Jan. 2; similarly, 0400Z on Jan. 2 would be 2000U (PST) on Jan. 1.

A good method is to use GMT (Z) for *all* amateur logging, schedule-making, QSLing and other amateur work. Confusion, with all the different time zones, is inevitable. Leave your clock on GMT.

The Canadian Maritime provinces and Puerto Rico use AST (Q) time, or ADST (P) time. Canal Zone uses EST (R) time. Most of Alaska and Hawaii use W time (+ 10 to GMT).

ARRL ENDING SIGNALS

Meaning	Phone	C.W.	Use
End of transmission	Over	<u>AR</u>	After call to a specific station, before contact has been established. Examples: Phone — W6ABC from W9LMN, over. C.W. — W6ABC DE W9LMN AR
End of message	End of message	<u>AR</u>	After transmission of a radiogram, following the signature.
Invitation to transmit (any station)	Go	K	After CQ and at the end of a transmission during QSO when there is no objection to another station breaking in.
Invitation to transmit (specific station, only)	Go only	<u>KN</u>	At the end of any transmission when only the specific station called or being contacted is invited to answer.
End of contact	Clear	<u>SK</u>	At the end of a QSO. On c.w., <u>SK</u> W8LMN DE W5BCD. On phone, W8LMN this is W5BCD clear.
Closing station	Clear and leaving the air	CL	When going off the air to indicate no calls will be listened for or answered. On phone, W7HIJ this is W2JKL, clear and leaving the air. On c.w., W7HIJ DE W2JKL CL

TIME CONVERSION CHART

	<u>Q</u>	<u>R</u>	<u>S</u>	<u>T</u>	<u>U</u>
GMT	EDT/AST	CDT/EST	MDT/CST	PDT/MST	PST
0000*	2000	1900	1800	1700	1600
0100	2100	2000	1900	1800	1700
0200	2200	2100	2000	1900	1800
0300	2300	2200	2100	2000	1900
0400	0000*	2300	2200	2100	2000
0500	0100	0000*	2300	2200	2100
0600	0200	0100	0000*	2300	2200
0700	0300	0200	0100	0000*	2300
0800	0400	0300	0200	0100	0000*
0900	0500	0400	0300	0200	0100
1000	0600	0500	0400	0300	0200
1100	0700	0600	0500	0400	0300
1200	0800	0700	0600	0500	0400
1300	0900	0800	0700	0600	0500
1400	1000	0900	0800	0700	0600
1500	1100	1000	0900	0800	0700
1600	1200	1100	1000	0900	0800
1700	1300	1200	1100	1000	0900
1800	1400	1300	1200	1100	1000
1900	1500	1400	1300	1200	1100
2000	1600	1500	1400	1300	1200
2100	1700	1600	1500	1400	1300
2200	1800	1700	1600	1500	1400
2300	1900	1800	1700	1600	1500
2400*	2000	1900	1800	1700	1600

Greenwich Mean Time (GMT) is the time at the zero or reference meridian. Time changes one hour with each change of 15° in longitude. The five time zones in the U.S. proper and Canada roughly follow these lines.

*0000 and 2400 are interchangeable. (2400 is associated with the date of the day ending, 0000 with the day just starting.

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ARRL and ICAO Phonetic Alphabets

A ADAM	A ALPHA
B BAKER	B BRAVO
C CHARLIE	C CHARLIE
D DAVID	D DELTA
E EDWARD	E ECHO
F FRANK	F FOXTROT
G GEORGE	G GOLF
H HENRY	H HOTEL
I IDA	I INDIA
J JOHN	J JULIET
K KING	K KILO
L LEWIS	L LIMA
M MARY	M MIKE
N NANCY	N NOVEMBER
O OTTO	O OSCAR
P PETER	P PAPA
Q QUEEN	Q QUEBEC
R ROBERT	R ROMEO
S SUSAN	S SIERRA
T THOMAS	T TANGO
U UNION	U UNIFORM
V VICTOR	V VICTOR
W WILLIAM	W WHISKEY
X X-RAY	X X-RAY
Y YOUNG	Y YANKEE
Z ZEBRA	Z ZULU